

Characteristics of the Catalytic Oxidation of Naphthalene. 2. Investigations of the Oxidation of Naphthalene in Long Layers of Vanadium Catalysts

S/073/60/026/004/010/018/XX  
B023/B064

the efficiency and selectivity of naphthalene oxidation catalysts, and also for determining the kinetic laws. A.T. Beskrovnaya, L.S. Fal'kovich and T. A. Sidorovich took part in the investigations. The authors thank S.T. Rashevskaya, head of the Tsentral'naya zavodskaya laboratoriya of the Rubezhanskiy Khimkombinat (Central Works Laboratory of the Rubezhanskiy Chemical Kombinat) for her help in the experiments. There are 3 figures, 3 tables and 8 Soviet references.

ASSOCIATION: Institut fizicheskoy khimii im. L.V. Pisarzhevskogo AN USSR (Institute of Physical Chemistry imeni L.V. Pisarzhevskiy of the Academy of Sciences, UkrSSR). Rubezhanskiy khimicheskiy kombinat (Rubezhanskiy Chemical Kombinat) ✓

SUBMITTED: July 7, 1959

Card 3/3

S/073/60/026/005/007/019  
B004/B063

AUTHORS: Vol'fson, V. Ya., Korneychuk, G. P., Royter, V. A.,  
Zhigaylo, Ya. V.

TITLE: Peculiarities of the Catalytic Oxidation of Naphthalene.  
3. Kinetics of the Oxidation of Naphthalene in Long Layers  
of Vanadium Catalysts

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, 1960, Vol. 26, No. 5,  
pp. 588-593

TEXT: The purpose of the present work was to obtain data on the mechanism underlying the oxidation of naphthalene on vanadium catalysts under conditions comparable to those applied in industry. The following catalysts were used: 1) a commercial catalyst from molten  $V_2O_5$ ; 2) a "combined mixture" with partly reduced  $V_2O_5$ . This catalyst had been suggested by the authors in Ref. 3; 3) tablets of the commercial vanadium-potassiumsulfate-silica gel catalyst (combined vanadium catalyst). Each experiment took 12-14 h. 2-3 h before the end of the experiment, samples were taken along

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Peculiarities of the Catalytic Oxidation of Naphthalene. 3. Kinetics of the Oxidation of Naphthalene in Long Layers of Vanadium Catalysts

S/073/60/026/005/007/019  
B004/B063

the catalyst layer, which were used to study the variations in concentration of naphthalene, naphthoquinone, maleic anhydride,  $\text{CO}_2$ , and  $\text{CO}$ . It was found that the partial reactions occurring during the oxidation of naphthalene on  $\text{V}_2\text{O}_5$  catalysts obey the following kinetic equations:

1)  $v_1 = k_1 C_n$  (formation of phthalic anhydride);  $k_1 = 4.5 \cdot 10^{-3} - 4.6 \cdot 10^{-3}$ ;  $C_n$  = concentration of naphthalene. 2)  $v_2 = k_2 \cdot C_n^{0.5}$  (formation of maleic anhydride);  $k_2 = 0.0665 \cdot 10^{-5} - 0.0835 \cdot 10^{-5}$ . 3)  $v_3 = k_3 \cdot C_n^2$  (formation of naphthoquinone);  $k_3 = 54 - 47.5$  [Abstracter's note: Obviously a misprint]. 4)  $v_4 = k_4 \cdot C_{nq}$  (oxidation of naphthoquinone);  $k_4 = 2.47 \cdot 10^{-3} - 2.55 \cdot 10^{-3}$ ;  $C_{nq}$  = concentration of naphthoquinone. 5)  $v_5 = k_5 C_n$  (formation of products on account of intense oxidation);  $k_5 = 1.10 \cdot 10^{-3} - 1.5 \cdot 10^{-3}$ . The partial reactions occurring during oxidation on the combined vanadium catalyst obey the following equations: 1)  $v_6 = k_6$  (formation of phthalic anhydride);

Card 2/3

ROYTER, V.A.; USHAKOVA, V.P.; KORNEYCHUK, G.P.; SKORBILINA, T.G.

Kinetics and mechanism of the catalytic oxidation of naphthalene to 1,4-naphthoquinone. Kin. i kat. 2 no.1:94-102 Ja-F '61. (MIRA 14:3)

1. Institut fizicheskoy khimii imeni L.V. Pisarshevskogo AN USSR.  
(Naphthalene) (Naphthoquinone) (Chemical reaction, Rate of)

KORNEYCHUK, G.P.; RUBANIK, M.Ya.

Reactor with a piston turbulator for measuring catalytic activity. Kin. i kat. 2 no. 4:633-636 JI-Ag '63. (MIRA 14:10)

1. Institut fizicheskoy khimii imeni L.V. Pisarzhevskogo AN USSR, Kiev.

(Catalysis)

KORNEYCHUK, G.P.; PYATNITSKIY, Yu.I.; Prinimal uchastiye: SEMENYUK, Yu.V.

Flow reactors for measuring catalytic activity. Kin.i kat. 3  
no.1:157-161 '62. (MIRA 15:3)

1. Institut fizicheskoy khimii imeni L.V.Pisarzhevskogo AN USSR.  
(Catalysis)

KORNEYCHUK, G.P.; USHAKOVA, V.P.; SKORBILINA, T.G.

Method for studying the reaction kinetics on catalysts in  
unsteady state. *Kin.i kat.* 2 no.6:931-935 N-D '61. (MIRA 14:12)

1. Institut fizicheskoy Khimii AN USSR. Kiev.  
(Catalysis)

KORNEYCHUK, G.P.

Gradientless reactors for investigating the kinetics of heterogeneous catalytic processes. *Kin.i kat.* 3 no.4:518-519 J1-Ag '62. (MIRA 15:8)

1. Institut fizicheskoy khimii imeni L.V.Pisarshevskogo AN USSR.  
(Catalysis) (Chemical reactors)



ISMAILOV, I.M., kand.tekhn.nauk; MAKHMUDOV, A.U., inzh.; KLEPIKOV, V.G., inzh.;  
Prinimali uchastiye: GORYUNOVA, N.P.; VORONINA, L.D.; BARTOSH, F.K.;  
SOLDATKIN, P.S.; KORNEYCHUK, G.P.; KHAMIDOV, N.Kh.; SHUL'ZHENKO, I.P.

Method of grist conditioning according to moisture. Masl.-zhir.prom.  
28 no.11:37-39 N '62. (MIRA 15:12)

1. Sredneaziatskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta zhirov (for Ismailov, Goryunova, Voronina, Bartosh). 2.  
Kattakurganskiy maslozhirovoy kombinat (for Makhmudov, Soldatkin,  
Korneychuk, Khamidov, Shul'zhenko).  
(Oils and fats)

ROYTER, Vladimir Andreyevich; KORNEYCHUK, Grigoriy Petrovich;  
USHAKOVA, Viktorina Petrovna; STUKANOVSKAYA, Nina  
Aleksandrovna; POKROVSKAYA, Z.S., red.; MATVEYCHUK, A.A.,  
tekhn. red.

[Catalytic oxidation of naphthalene] Kataliticheskoe okislenie naftalina. Kiev, Izd-vo Akad. nauk RSSR, 1963. 106 p.  
(MIRA 16:5)

(Naphthalene) (Oxidation) (Vanadium catalysts)

STADNIK, V.P.; KORNEYCHUK, G.P.

Methods of testing the activity of catalysts. Ukr. khim.  
zhur. 30 no.3:252-256 '64. (MIRA 17:10)

1. Institut fizicheskoy khimii im. L.V. Pisarzhevskogo AN  
UkrSSR.

STADNIK, V.P.; KORNIEYCHUK, G.P.; KOYTEL, V.A.

Kinetics of catalytic oxidation of sulfur dioxide on vanadium pentoxide. Ukr. khim. zhur. 30 no.9:919-925 '64.

(MIRA 17:10)

1. Institut fizicheskoy khimii imeni Pisarzhevskogo AN UkrSSR.

ODRIN, V.M.; KORNEYCHUK, G.P.

Stability of 1,4-naphthoquinine on vanadium oxide catalysts.  
Ukr. khim. zhur. 30 no.7:701-708 '64 (MIRA 18:1)

1. Institut fizicheskoy khimii AN UkrSSR im. L.V. Pisarzhevskogo.

KORNEYCHUK, G.P.; ODRIN, V.M.

Different types of gradientless reactors for the study of catalysis  
by the gravimetric method allowing for changes in catalyst composition.  
Kin. 1 kat. 5 no.5:938-942 S-O '64. (MIRA 17:12)

1. Institut fizicheskoy khimii imeni Pisarzhevskogo AN UkrSSR.

ODRIN, V.M.; KACHKUROVA, I.Ya.; ROYEV, L.M.; KORNEYCHUK, G.P.

Interaction between a vanadium oxide catalyst and ~~naphthalene-air mixture~~  
in the course of catalysis as studied by infrared spectroscopy. Dokl.  
AN SSSR 163 no.2:410-413 J1 '65. (MIRA 18:7)

1. Institut fizicheskoy khimii im. L.V.Pisarzhevskogo AN UkrSSR.  
Submitted November 3, 1964.

ODRIN, V.M.; KORNEYCHUK, G.P.

Stability of 1,4-naphthoquinone on a vanadium-potassium  
sulfate-silica gel catalyst. Ukr. khim. zhur. 31 no. 11:  
1123-1127 '65 (MIRA 19:1)

1. Institut fizicheskoy khimii AN UkrSSR imeni Pisarzhevskogo.



KLEPIKOV, V.G., inzh.; KORMSYCHUK, G.P., inzh.; ZUFAROV, S.Sh., inzh.;  
Prinimali uchastie: ZINUROV, A.Z.; TUGUSHEVA, F.Z.; LOLEYT,  
Ye.F.; GALIYEVA, D.R.

Putting a plant for the distillation of fatty acids from  
cottonseed soap stocks into operation. Masl. - zhir. prom. 27  
no.8:37-42 Ag '61. (MIRA 14:8)

1. Kattakurganskiy maslozhirovoy kombinat imeni V.V. Kuybysheva  
(for all, except Zufarov). 2. Sredneaziatskiy politekhnicheskiy  
institut (for Zufarov).

(Katta-Kurgan--Oil industries) (Acids, Fatty)

YARMUKHAMEDOV, T.A.; <KORNEYCHUK, G.P., inzh.; LEVIKOV, G.I.

Technical progress at the Katta-Kurgan Oil-Extraction Combine.  
Mazl.-zhir. prom. 27 no. 4:36-38 Ap '61. (MIRA 14:4)

1. Katta-Kurganskiy maslozhirovoy kombinat.  
(Katta-Kurgan--Oil industries)

VRASHEV, S.P., inzhener; LETNIK, A.L., dotsent; SHIFRIN, D.M., inzhener;  
TAREYEV, V.M., professor, doktor tekhnicheskikh nauk, redaktor;  
~~KORNEYCHUK, N.K., kandidat tekhnicheskikh nauk, retsenzent; LUKIN,~~  
~~I.I., kandidat tekhnicheskikh nauk, retsenzent; NELSON-SKORNYAKOV,~~  
F.B., professor, laureat Stalinskoy premii, doktor tekhnicheskikh  
nauk, redaktor; POPOVA, S.M., tekhnicheskiiy redaktor

[Study of machinery] Mashinovedenie. Pod red. V.M.Tareeva. Moskva,  
Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 463 p.  
(Mechanical engineering) (MLRA 8:4)

KORNEYCHUK, N.K., kandidat tekhnicheskikh nauk.

Water injection in internal combustion engines. [Trudy] MVTU no.51:  
23-29 '55. (MLRA 9:8)

(Automobiles--Engines)

KORNEYCHUK, Nikolay Karnovich; CHERNOV, Aleksandr Vasil'yevich; SHERSTYUK,  
A.N., nauchnyy redaktor; BOGACHEV, F.V., redaktor; RAKOV, S.I.,  
tekhnicheskii redaktor

[Machinery] Mashinovedenie. Moskva, Vses.uchebno-pedagog. izd-vo  
Trudreservisdat, 1957. 439 p. (MLA 10:8)  
(Engines)

VASILENKO, Aleksey Nikolayevich, kand. tekhn. nauk; DRYZHAKOV, Yevgeniy Vasil'yevich, dots.; ISAYEV, Sergey Ivanovich, kand. tekhn. nauk; KORNEYCHUK, Nikolay Karpovich, kand. tekhn. nauk, dots.; KOFANOV, Vyacheslav Ivanovich, assistant; KRUTOV, Vitaliy Ivanovich, doktor tekhn. nauk, prof.; MIRONOV, Boris Mikhaylovich, kand. tekhn. nauk; NIGMATULIN, Iskander Nigmatulevich, doktor tekhn. nauk, prof.; NOSOV, Mikhail Vasil'yevich, prof.; SAMOYLOV, Mikhail Sergeyevich, assistant; SPORYSH, Igor Pavlovich, kand. tekhn. nauk, prof.; KHVOSTOV, Viktor Ivanovich, kand. tekhn. nauk; SHISHOV, Yevgeniy Viktorovich, kand. tekhn. nauk; YUDAYEV, Boris Nikolayevich, kand. tekhn. nauk, dots.; KUTYRIN, I.N., dots., kand. tekhn. nauk, retsenzent; SHVEDOV, A.M., dots., retsenzent; TUPITSYNA, L.A., red.; FUFAYEVA, G.I., red.

[Problems in technical thermodynamics and heat transfer]  
Sbornik zadach po tekhnicheskoi termodinamike i teplopere-  
dache. [By] A.N.Vasilenko i dr. Moskva, Vysshaya shkola,  
1964. 369 p. (MIRA 17:4)

1. ~~Prepodavatel'skiy kollektiv~~ kafedry termodinamiki i teplo-  
peredachi Moskovskogo vysshego tekhnicheskogo uchilishcha  
(for all except Kutyrin, Shvedov, Tupitsyna, Fufayeva). 2. Mo-  
skovskiy aviatsionnyy institut (for Kutyrin, Shvedov).

KORNEYCHUK, N.P., Cand Phys-Math Sci -- (diss) "Certain problems of approximation of periodic functions ~~ef~~ by means of trigonometric polynomials." Dnepropetrovsk, 1959. 8 pp (Min of Higher Education UkrSSR. "Dnepropetrovsk State U in 300th Anniversary of <sup>the Rev</sup> Unification of the Ukraine ~~with~~ <sup>and</sup> Russia). 150 copies (KL, 38-59, 114)

7

67503

16(1) 16 4100

SOV/155-59-1-6/30

AUTHOR: Korneychuk, N.P.

TITLE: Asymptotic Estimation of the Remainder for the Approximation of Periodic Functions Satisfying the Lipschitz Condition, by the Interpolation Sums of Bernshteyn

PERIODICAL: Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye nauki, 1959, Nr 1, pp 38 - 41 (USSR)

ABSTRACT: Let  $KH^{(\alpha)}$  be the class of  $2\pi$ -periodic functions which on the real axis satisfy the condition  $Lip \alpha$  with the constant  $K$ ,  $0 < \alpha \leq 1$ . Let  $\tilde{B}_n(f; x)$  be the interpolation sum of S.N. Bernshteyn  $[Ref^{n1}]$  and  $E_n(\tilde{B}; \alpha; x) = \sup_{f \in KH^{(\alpha)}} |f(x) - \tilde{B}_n(f; x)|$ .

Theorem : Uniformly with respect to  $x$ ,  $0 \leq x \leq \frac{1}{2}h$  for all  $0 < \alpha \leq 1$  there holds the asymptotic relation

$$E_n(\tilde{B}; \alpha; x) = \left( \frac{\pi}{n+1} \right)^\alpha \left\{ (1-u)^\alpha - \frac{1}{2} + \frac{1}{\pi} \cos \pi u \left[ \frac{2}{1-4u} (1+u^\alpha - (1-u^\alpha) + ((1+u)^\alpha - (1-u)^\alpha) \left( \frac{1}{1+2u} - \int_0^1 \frac{t^{1/2+u}}{1+t} dt \right) \right] \right\} + O(n^{-1-\alpha}),$$

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Asymptotic Estimation of the Remainder for the <sup>67503</sup> SOV/155-59-1-6/30  
Approximation of Periodic Functions Satisfying the Lipschitz Condition,  
by the Interpolation Sums of Bernshteyn

where  $u = \frac{x}{h}$  ,  $h = \frac{2\pi}{2n+1}$  .

Several special cases are enumerated, e.g.

$$E_n(\tilde{B}, \alpha, 0) = \frac{1}{2} \left( \frac{\pi}{n+1} \right)^\alpha + O(n^{-1-\alpha})$$

S.M. Nikol'skiy is mentioned in the paper.

There are 2 Soviet references.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet imeni 300-letiya  
vossoyedineniya Ukrainy s Rossiyei (Dnepropetrovsk State  
University imeni 300 Years Reunion of the Ukraine with Russia)

SUBMITTED: October 24, 1958

Card 2/2

16(1)

SOV/21-59-4-4/27

AUTHOR: Korneychuk, N.P.

TITLE: On Approximation of a Class of Functions With the Sums of Bernstein-Rogosinski

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1959, Nr 4, pp 359-363 (USSR)

ABSTRACT: The author examines the upper bound (3) of the divergent sums (1), contained in the works by S.N. Bernstein [Ref 1] and W. Rogosinski [Ref 2], in the  $KH^{(a)}$  class of periodic functions  $f(x)$ , that satisfy the condition (2), and proves the validity of the

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On Approximation of a Class of Functions With the Sums of Bernstein-Rogozinski

SOV/21-59-4-4/27

correlations (5) and (11) for the case when  $K=1$ .  
There are 6 Soviet references.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet  
(Dnepropetrovsk State University)

PRESENTED: By B.V. Gnedenko, Member of the AS UkrSSR

SUBMITTED: December 15, 1958

Card 2/2

16(1)

AUTHOR: Korneychuk, N.P.

SOV/20-125-2-4/64

TITLE: On the Approximation of Periodic Functions Satisfying the Lipschitz Condition, by Sums of Bernstein-Rogosinski (0 priblizhenii periodicheskikh funktsiy, udovletvoryayushchikh usloviyu Lipshitsa, summami Bernshteyna-Rogozinskogo)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 2, pp 258-261 (USSR)

ABSTRACT: Let  $KH^{(\alpha)}$  be the class of  $2\pi$ -periodic functions satisfying the Lipschitz condition with the exponents  $\alpha$  and the constant  $K$ . Let the function

$$(1) \quad f(x) \sim \frac{a_0}{2} + \sum_{k=1}^{\infty} (a_k \cos kx + b_k \sin kx)$$

be approximated by the sequence of polynomials

$$U_n(f; x; \lambda) = \frac{a_0}{2} + \sum_{k=1}^n \lambda_k^{(n)} (a_k \cos kx + b_k \sin kx).$$

The author gives estimations for

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On the Approximation of Periodic Functions  
Satisfying the Lipschitz Condition, by Sums of  
Bernstein-Rogosinski

SOV/20-125-2-4/64

$$E_n(\alpha; \lambda) = \sup_{f \in KH}(\alpha) \max_x |f(x) - U_n(f, x, \lambda)|$$

if  $\lambda_k^{(n)} = \cos k\beta_n$ ,  $\beta_n = \frac{\pi}{2n+1} + O(\frac{1}{n \ln n})$ . In this case

$$U_n(f; x; \beta) = \frac{1}{2} \{S_n(f; x + \beta_n) + S_n(f; x - \beta_n)\}$$

are the sums of Bernstein-Rogosinski ( $S_n(f, x)$  denotes the partial sums of (1)). The author investigates a series of cases where a part of the results can be found implicitly already in papers of Stechkin. The author thanks Professor S.M.Nikol'skiy and M.D. Kalashnikov for advices.

There are 6 references, 4 of which are Soviet, 1 American, and 1 French.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet imeni 300-letiya  
vossoyedineniya Ukraine s Rossiyey (Dnepropetrovsk State  
University imeni 300-letiya universiteta Ukrainy s Rossiyei)  
~~University imeni 300-letiya universiteta Ukrainy s Rossiyei~~ (University of the Reunion of the Ukrain With Russia)

PRESENTED: December 3, 1958, by A.N.Kolmogorov, Academician  
SUBMITTED: October 11, 1958

Card 2/2

KORNEYCHUK, N.P.

Best uniform approximation on certain classes of continuous functions.  
Dokl. AN SSSR 140 no.4:748-751 0 '61. (MIRA 14:9)

1. Dnepropetrovskiy gosudarstvennyy universitet. Predstavleno  
akademikom A.N.Kolmogorovym.  
(Functions, Continuous) (Approximate computation)

30697

16.4100

S/O20/61/141/002/007/027  
0111/G444

AUTHOR: Korneychuk, N. P.

TITLE: The best uniform approximation of differentiable functions

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. 2, 1961,  
304-307

TEXT: Let  $H_\omega$  be the class of continuous functions  $f(x)$ ,  $f(x+2\pi)=f(x)$ ,  
the continuity modulus of which

$$\omega(f; t) = \sup_{|x' - x''| \leq t} |f(x') - f(x'')|$$

is not larger than a given continuity modulus  $\omega(t)$ . Let  $W^{(1)}_{H_\omega}$  be  
the class of functions  $f(x)$ ,  $f(x+2\pi)=f(x)$ , the first order derivative  
 $f'(x)$  of which belongs to  $H_\omega$ . Let  $E_n(f)$  be the best uniform approxi-  
mation of the periodic function  $f$  by trigonometric polynomials of  
order  $\leq n$ .

The following theorem is proved:

If  $\omega(t)$  is a continuity modulus being convex from above, then

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30697

S/020/61/141/002/007/027  
C111/C444

The best uniform approximation of ...

$$\sup_{f \in W^{(1)}_{H\omega}} E_n(f) = \frac{1}{4} \int_0^{\frac{\pi}{n+1}} \omega(t) dt \quad (n = 0, 1, \dots). \quad (2)$$

The author mentions S. N. Bernshteyn. There are 3 Soviet-bloc and 1 non-Soviet-bloc references.

ASSOCIATION: Dnepropetrovskiy gosudarstvenny universitet im. 300-letiya vossyedineniya Ukrainy s Rossiyei (Dnepropetrovsk State University im. 300-Years Reunion of the Ukraine with Russia)

PRESENTED: June 22, 1961, by S. L. Sobolev, Academician

SUBMITTED: June 16, 1961

Card 2/2



KORNEYCHUK, N.P.

Best uniform approximation of differentiable functions. Dokl. AN  
SSSR 141 no.2:304-307 N '61. (MIRA 14:11)

1. Dnepropetrovskiy gosudarstvennyy universitet im. 300-letiya  
vossoyedineniya Ukrainy s Rossiyei.  
(Approximate computation) (Functions, Discontinuous)

KORNEYCHUK, N.P. [Korniichuk, M.P.]

Approximation of Lipshitz class functions by linear methods.  
Dop.AN URSR no.7:859-863 '61. (MIRA 14:8)

1. Dnepropetrovskiy gosudarstvennyy universitet. Predstavleno  
akademikom AN USSR B.V.Gnedenko [Hniedenko, B.V.].  
(Functional analysis)

16.0100

35653

S/020/62/143/001/004/030  
B112/B102

AUTHOR: Korneychuk, N. P.

TITLE: Existence of a linear polynomial operator which gives an optimal approximation on a class of functions

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 1, 1962, 25 - 27

TEXT: The author considers the space  $C_{2\pi}$  of the continuous  $2\pi$ -periodic functions  $f$  with the norm  $\|f\| = \max_x |f(x)|$ , especially, the subspace  $H_\omega$  consisting of the functions  $f$  whose modulus  $\omega(f, t)$  of continuity is bounded by a given convex modulus  $\omega(t)$ . It is demonstrated that a certain linear polynomial operator  $\bar{U}_n$  of the degree  $n$  satisfies the equation

$$\sup_{f \in H_\omega} \|\bar{U}_n(f, x) - f(x)\| = \sup_{f \in H_\omega} E_n(f)$$

then and only then if  $\omega(t)$  is a linear function on the interval  $[0, \pi/n+1]$ .

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Existence of a linear...

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B112/B102

$E_n(f)$  means the optimal uniform approximation of  $f$  by trigonometric polynomials of the degree  $n$ . S. M. Nikol'skiy is thanked for assistance. There are 5 references: 4 Soviet and 1 non-Soviet.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet im. 300-letiya vostoedineniya Ukrainy s Rossiyei (Dnepropetrovsk State University imeni 300th Anniversary of the Unification of the Ukraine with Russia)

PRESENTED: November 3, 1961, by A. N. Kolmogorov, Academician

SUBMITTED: November 2, 1961

Card 2/2

KORNEYCHUK, N.P.

The exact constant in D.Jackson's theorem on the best approximation of continuous periodic functions. Dokl.AN SSSR 145 no.3:514-515  
Jl '62. (MIRA 15:7)

1. Dnepropetrovskiy gosudarstvennyy universitet imeni 300-letiya vossoyedineniya Ukrainy s Rossiyey. Predstavleno akademikom P.S.Novikovym.

(Functions, Periodic)

ERNSTSHUK M.F. [Ernstshuk, M.F.]

Extremum properties of periodic functions. Dop. AN URSR no. 1986.  
998 162. (MIR 18-2)

1. Mepronetrovskiy gosudarstvennyy universitet.

164100

S/038/63/027/001/001/004  
B112/B186

AUTHOR: Korneychuk, N. P.

TITLE: Optimum approximation of continuous functions

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya matematicheskaya,  
v. 27, no. 1, 1963, 29-44

TEXT: The set  $C_{2\pi}^*$  of all  $2\pi$ -periodic continuous functions  $f$  is considered for which the modulus of continuity is a convex function:

$$\omega(f; t_1) + \omega(f; t_2) \leq 2\omega(f; (t_1 + t_2)/2).$$

The estimate

$$E_n(f) \leq \omega(f; \pi/(n+1))/2 \quad (n = 0, 1, 2, \dots) \quad (3.1)$$

is derived. The optimum approximation of the functions  $f \in C_{2\pi}^*$  by means of certain linear polynomial operators is investigated.

ASSOCIATION: Dnepropetrovskiy gos. universitet (Dnepropetrovsk State University)

Card 1/2

Optimum approximation of ...

S/038/63/027/001/001/004  
B112/B186

SUBMITTED: May 12, 1961

VB

Card 2/2



KORNEYCHUK, N.P.

Exact value of the best approximations and diameters of certain  
classes of functions. Dokl. AN SSSR 150 no.6:1218-1220 Je '63.  
(MIRA 16:8)

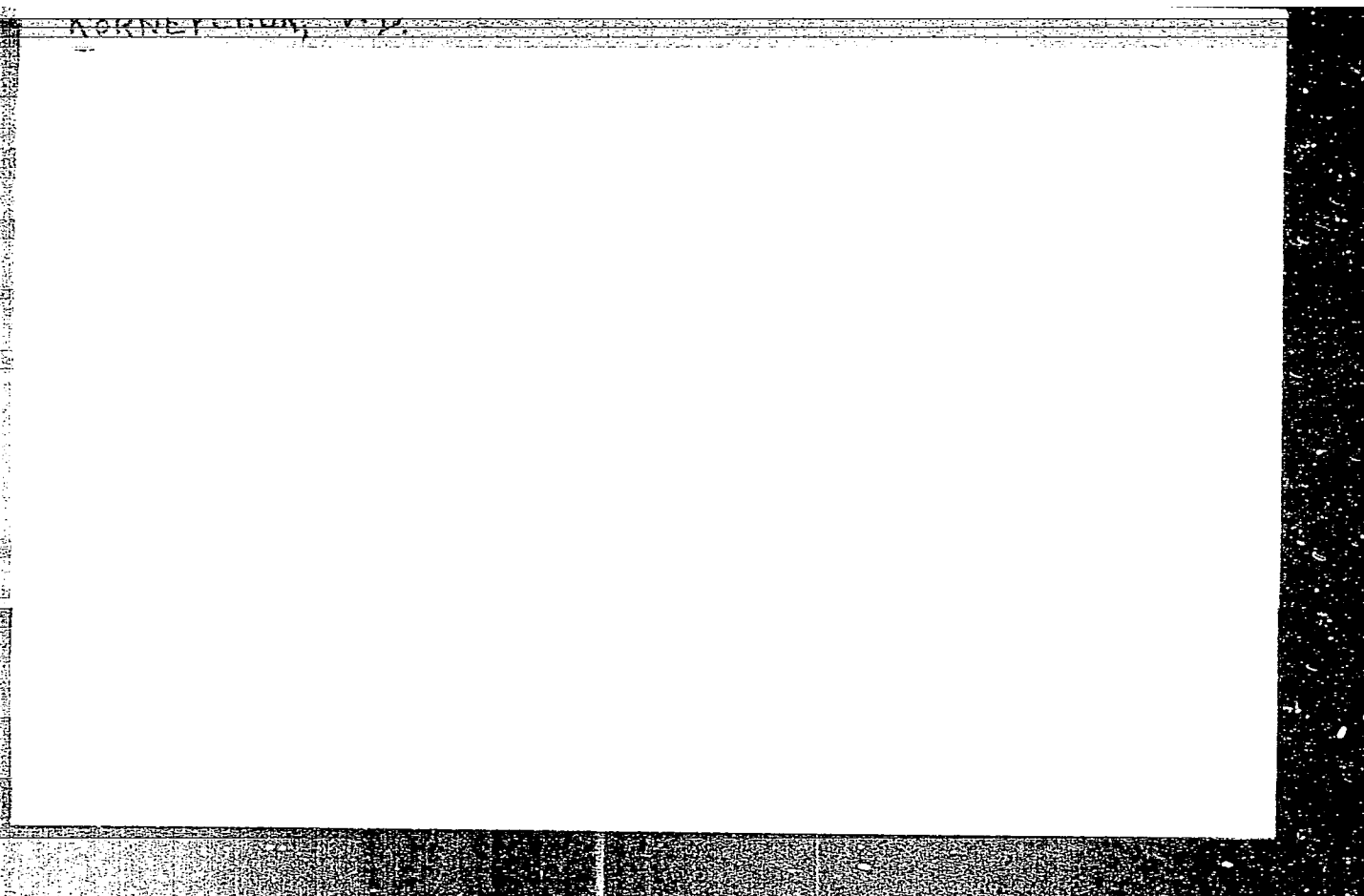
1. Predstavleno akademikom A.N.Kolmogorovym.  
(Functions, Continuous)

KORNEYCHUK, N.P.

Best approximation of polygonal functions by polygonal functions.  
Vop. mat. fiz. i teor. funk. no.1:66-71 '64. (MIR 18:2)

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824710016-2



APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000824710016-2"

KORNEYCHUK, Vasilii Dem'yanovich [Korneichuk, V.D.]; FLAKIDA, Yevgeniya  
Kondrat'yevna; MEL'NIK, S.A., red.

[Fertilizing vineyards in the Ukraine] Udobrenie vinogradnikov  
na Ukraine. Odessa, Odesskoe obl. izd-vo, 1955. 99 p.

(MIRA 13:7)

(Ukraine--Viticulture)

KORNEYCHUK, V.D.; PLAKIDA, Ye.K.; ROSSOSHANSKAYA, V.A., red.;  
DEYEVA, V.M., tekhn. red.

[Fertilizing vineyards]Udobrenie vinogradnikov. Moskva,  
Sel'khozizdat, 1962. 205 p. (MIRA 15:10)  
(Grapes--Fertilizers and manures)

Card 1/2

UDC: 681.142.07

ACC NR: AP7005660

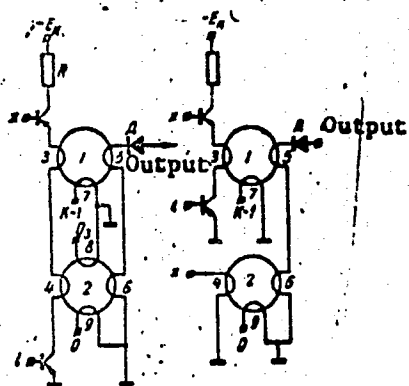


Fig. 1. Logic element

1, 2 - Ferrite cores; 3, 4 - input windings; 5, 6 - output windings; 7, 8 - read windings; 9 - restoration winding; x, i - input signals.

$$j_i(x) = \begin{cases} k-1 & \text{for } x=i \\ 0 & \text{for } x \neq i \end{cases}$$

where x and i = 0, 1, 2... k - 1, the input windings are connected in parallel and the output windings in series. Both types of winding are connected through a diode to the output terminals of the device. In order to process the characteristic function  $j_i(x)$  at  $i = 0$ , the input winding is located on a single core. Orig. art. has: 1 figure. [09]

SUB CODE: 09/ SUBM DATE: 15Oct65/ ATD PRESS: 5116

Card 2/2

BELOKON', Anatoliy Prokof'yevich; KORNEYCHUK, Vladimir  
Trofimovich; MASHEVSKIY, V.F., red.

[Engineer support in an attack of a motorized rifle (tank)  
battalion (company)] Inzhenernoe obespechenie nastupleniia  
motostrelkovogo (tankovogo) batal'ona (roty). Moskva,  
Voenizdat, 1964. 204 p. (MIRA 17:7)

ACC NR: AM5000928

Monograph

UR/

Belokon', Anatoliy Prokof'yevich, (Docent; Candidate of Military Sciences; Colonel in Reserve); Korneychuk, Vladimir Trofimovich, (Docent; Candidate of Military Sciences; Colonel)

Engineer support in an attack of a motorized rifle (tank) battalion (company) Inzhenernoye obespecheniye nastupleniya motostrelkovogo (tankovogo) batal'ona (roty) Moscow, Voenizdat, 1964. 204 p. illus.

TOPIC TAGS: military engineering, military operation, ground force tactic, tactical warfare

PURPOSE AND COVERAGE: This book discusses the troop-support function of the modern Engineer Corps and its methods of operation in different combat areas, under various meteorological conditions, and in all tactical applications. The authors stress the importance of the Engineer Corps in modern warfare. The introduction of some modern weapons, equipment, and instrumentation in military tactics requires the assignment of engineer units to each combat-ready battalion or company. The book contains 66 figures.

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ACC NR: AM5000928

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(according to foreign military specialists) -- 6

Ch.2. Engineer support of an attack by a motorized-infantry (tank)  
battalion (company) on an enemy in a defensive position -- 26

Ch.3. Engineer support characteristics in the assault crossing of a  
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Ch.4. Engineer support characteristics in attacks on towns (populated  
areas) -- 101

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Ch.6. Engineer support characteristics for attacks in wooded areas -- 160

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ACC NR: AM5000928

Ch.7. Engineer support characteristics in attacks in mountain  
terrain -- 175

SUB CODE: 15/ SUBM DATE: 04Mar64/ ORIG REF: 011/

Card 3/3

KORNEYCHUK, Ye.A.

Rupture of the uterus along the cicatrix of a former cesarean section with a transverse section of the lower segment. Zdrav. Turk. 8 no.1:22 Ja '64. (MIRA 17:5)

1. Iz kafedry akusherstva i ginekologii (zaveduyushchiy - dotsent M.S. Seyradov) Turkmenskogo gosudarstvennogo meditsinskogo instituta i Turkmenskoy respublikanskoy klinicheskoy bol'nitsy im. N.I. Pirogova (glavnyy vrach M.B. Shapiro).

KORNEYENKO, E. I., BEZFAMILNAYA, P. S., LOY, T. D., KORABLEV, N. G.,  
GELLER, I. YU., VISHNEVSKAYA, S. M., SHEVCHUK, M. K., EVALIBOVA, E. I.  
and MUKVOZ, L. G.

"The Epidemiology and Prophylaxis of Helminthiasis in the Zone Affecting the Construction of the Kakhovka Hydroelectric Power Station, the Water Reservoir, and the Verkhne-Ingulets Canal."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

NESTERENKO, V.V., gornyy inzh.; KORNEYENKO, D.D., gornyy inzh.;  
AL'BRUT, B.I., gornyy inzh.

Practice of conducting large-scale blasting in a system of  
sublevel caving with ore breaking by deep boreholes.  
Gor. zhur. no.12:13-15 D '62. (MIRA 15:11)

1. Dzerzhinskiy gosudarstvennyy trest zhelezorudnoy  
promyshlennosti, Krivoy Rog.  
(Krivoy Rog Basin--Blasting)

KORNEYENKO, I. A.

Dissertation: "Generation and Behavior of a Low-Frequency Electromagnetic Field in Nonhomogeneous Media." Cand Phys-Math Sci, Leningrad State U, Leningrad, 1953.  
(Referativnyy Zhurnal--Fizika--Moscow, Apr 54)

SO: SUM 243, 19 Oct 1954

16.6000,24.2100

77328  
SOV/57-30-1-7/18

AUTHOR: Korneyenko, I. A.

TITLE: Average Values of Parameters of Nonhomogeneous Media

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1960, Vol 30, Nr 1,  
pp 44-48 (USSR)

ABSTRACT: Introduction: The author stresses the importance of nonhomogeneous media in electrical engineering and geology. He distinguishes between matrix nonhomogeneity where foreign materials are imbedded in the basic medium, and the statistically nonhomogeneous medium consisting of a chaotic mixture of finite-sized heterogeneous bodies. This paper is an attempt to devise a general approach for determination of the average value of parameter  $\alpha$  (dielectric permittivity, electrical conductivity) in a series of nonhomogeneous media. Derivation of the averaging law: The author uses the vector divergence theorem to give the relation connecting field values in

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Average Values of Parameters of Non-homogeneous Media

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various components of the nonhomogeneous medium. This theorem connects the average value of certain quantities in the imbedded region with their values on the enclosing surface. He looks for equations which will then connect average values on the enclosing surface. He looks for equations which will then connect average values in the entire nonhomogeneous medium. In the case of a matrix nonhomogeneous medium, the index "o" refers to the basic medium, and index "k" refers to imbedded materials. The author applies to the medium the divergence theorem and obtains

$$-\int_{V_o} \tau E_o dV = -\oint_{S_o} \varphi_o \frac{\partial \psi}{\partial n} dS = + \sum_k \oint_{S_k} \varphi_k \frac{\partial \psi}{\partial n} dS -$$

$$-\int_{S_{epi}} \varphi_{epi} \frac{\partial \psi}{\partial n} dS = \sum_k \int_{V_k} \tau E_k dV - \int_V \tau E_{epi} dV.$$

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where  $V_0$  is the volume between arbitrary surface  $S_{cp}$ , which lies in its entirety in the basic medium, and the surfaces  $S_k$  of individually imbedded materials;  $V_k$  is the volume inside the  $k$ -th  $S_k$  surface;  $V$  is the total volume inside surface  $S_{cp}$ ;  $\varphi_k$  is the value of the potential  $\varphi_0$  on  $S_k$  and  $\varphi_{cp} = \varphi_0$  on surface  $S_{cp}$ ;  $\nabla\psi = \tau$ ;  $\Delta\psi = 0$  and  $\nabla\varphi = -E$ . In the case of an isotropic medium the directions of all vectors coincide with that of the applied field and therefore,

$$V_0 E_{0cp} + \sum_k V_k E_{kcp} = V E_{cp}. \quad (1)$$

Using

$$\nabla\psi = -E, \text{ and } \nabla\varphi = \tau$$

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$$\alpha_k \frac{\partial \psi}{\partial n} = \alpha_0 \frac{\partial \psi}{\partial n} \quad \text{и} \quad \alpha_{cp} \frac{\partial \psi}{\partial n} = \alpha_0 \frac{\partial \psi}{\partial n}$$

From the divergence theorem the author obtains

$$\sum_k V_k \alpha_k E_{kcp} + V_0 \alpha_0 E_{0cp} = V \alpha_{cp} E_{cp}. \quad (2)$$

Using similar reasoning for a statistically inhomogeneous medium the author obtains the corresponding equations:

$$\sum_k V_k E_{kcp} = V E_{cp} \quad \sum_k V_k \alpha_k E_{kcp} = V \alpha_{cp} E_{cp}.$$

Calculation of average values of parameters: The author computed average value for a parameter  $\alpha$  for a medium consisting of  $n$  parallel layers of materials with parameters

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$$\alpha_1, \alpha_2 \dots \alpha_n.$$

For a field perpendicular to the surfaces of the layers he obtains

$$\alpha_{cp} = \frac{1}{\sum_k \frac{\theta_k}{\alpha_k}},$$

where  $\theta_k = \frac{\ddot{V}_k}{V}$  is relative volume content of the k-th component. In the case of the field parallel to the surfaces, the result is different due to changed boundary conditions:

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$$\alpha_{cp} = \sum_k \theta_k \alpha_k.$$

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Finally, for the case of imbedded materials in the form of spheres, the author obtains the result

$$a_{cp} = a_0 + \sum_k (a_k - a_0) \frac{a_{cp} + 2a_0}{a_k + 2a_0} \theta_k.$$

There is 1 Soviet reference.

ASSOCIATION: Murom Pedagogy Institute (Muromskiy pedagogicheskiy institut)

SUBMITTED: May 27, 1958

Card 6/6

FEDOROVA, L.M.; ZANINA, Ye.P.; KORNEYENKO, V.P.

Simultaneous determination of gases in metals by emission spectroscopy. Zav. lab. 31 no.11:1347 '65.

(MIRA 19:1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni Bardina.

KORNEYENKOV, A.N.; KAMSHILOV, N.A., otvetstvennyy redaktor; SAVZDARG, V.E.,  
redaktor; PAVLOVA, M.M., tekhnicheskij redaktor

[The orchard; a guidebook] Plodovyi sad; putevoditel'. Moskva,  
Gos. izd-vo selkhoz. lit-ry, 1956. 27 p. (MLRA 9:9)

1. Moscow. Vsesoyuznaya sel'skokhozyaystvennaya vystavka, 1954-  
(Moscow--Fruit culture--Exhibitions)

KORNEYENKOV, A. N.

Toward new achievements in the steel industry of the southern part  
of the Ural Mountain region. Sov. profsoiuzy 6 no.12:24-28 S '58.  
(MIRA 11:9)

1. Glavnyy inzhener upravleniya metallurgicheskoy promyshlennosti  
Chelyabinskogo sovnarkhosa.  
(Ural Mountain region--Steel industry)

S/133/60/000/007/007/016

The Refining of Alloy Steels by Molten Synthetic Slags

Slag	CaO	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	MgO	FeO
A	<u>53.3</u>	<u>44.4</u>	<u>1.42</u>	<u>1.22</u>	<u>0.18</u>
	49.5	42.2	3.54	3.46	0.25
B	<u>53.6</u>	<u>43.8</u>	<u>1.31</u>	<u>1.46</u>	<u>0.18</u>
	50.4	41.5	4.32	3.83	0.23

The temperature of the slag varied between 1,650°C and 1,750°C. The electric power used in preparing the slag was 150 kwh per 1 ton of steel, this value, however, will not be higher than 90 kwh/ton when using furnaces specially designed for this purpose. The electrode consumption in the smelting furnace amounted to 1.3 kg/ton steel. In the experiments the following steel types were used: 11X15 (ShKh15), 11X15CG (ShKh15SG), C65A (S65A), 30XГCA (30KhGSA), 30XГCHA (30KhGSNA), 40XHMA (40KhNMA), and Y7A-Y8A (in 20-t electric furnaces) and 38XMA (38KhMYuA), 35XMA (35KhYuA), 18XMA (18KhNVA), 12X2H4A (12Kh2N4A), 12XH3A (12KhH3A), CX8 (SKh8), 1X13 (1Kh13) and 1X18H9T (1Kh18H9T) (in 10-t electric furnaces). Several modifications of refining are described: under basic and chamotte slag: with different amounts of ferrosilicon and aluminum; with and without deoxidation of the metal and with varying dura-

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S/133/60/000/007/007/016

## The Refining of Alloy Steels by Molten Synthetic Slags

tion of the process. Generally it was found that the refining time was reduced by 45 - 50 min for all steel types and the output of the electric furnace could be increased by 10 - 15%. The macrostructure and the fracturing of the tested steel types were found to be satisfactory. The sulfur content decreased to 0.005 - 0.007%, with an initial sulfur content of 0.040%. The most considerable desulfuration by synthetic slag was obtained in ball bearing steels (0.003 - 0.006%), whereas desulfuration was less intensive in structural steels, in which the sulfur content was 0.001 - 0.002% higher than in ball bearing steels, but still 40 - 50% less than in the conventional type of this kind of steel, with 0.011 - 0.012% S content. It was found that by refining with synthetic slag the amount of sulfide and oxide inclusions could also be reduced. Structural steels of high purity (with regard to inclusions) can be produced by refining with basic slags and when applying diffusion deoxidation. On account of the decrease of the sulfur content and non-metallic inclusions, the mechanical properties, in particular the impact strength and the relative shrinking, are considerably improved in structural and stainless steels. The best results were obtained for the 30KhGSA steel: 5.2 kg-m/cm<sup>2</sup> and 43.5%, respectively. These values

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# The Refining of Alloy Steels by Molten Synthetic Slags

are 1.6 times and twice higher than those for the conventional type of this steel. It was also found that the anisotropy of the metal properties decreased: the relation of values for relative shrinkage of transverse and longitudinal specimens increased from 0.62 (of the conventional metal) to 0.79 and 0.86 on the average for the test metal, observed in two variants of the process (variant I and II), whereas the relation of the values for impact strength was raised from 0.56 to 0.71 and 0.74, respectively. It was found that by processing open-hearth steel and converter steel with synthetic slag, according to the method described, the properties of these steel types can be raised to the level of those of electrosteel. The article contains the principal technological data for the test steels, the changes of the sulfur content in the metal and the synthetic slag in the various modifications of refining and the indices of mechanical properties of the structural and stainless steel specimens. There are 6 sets of graphs, 1 diagram, 3 tables and 4 references: 1 Soviet, 1 Swedish and 2 English.

ASSOCIATION: Ukrainskiy institut metallor (Ukrainian Metal Institute)

Card 4/4

VOINOV, S.G., kand.tekhn.nauk; KORNEYENKOV, A.N., inzh.; PETROV, A.K.;  
BOKSHITSKIY, Ya.M.; MARKELOV, A.I.; SHALIMOV, A.G., kand.tekhn.  
nauk; KOSOY, L.F., inzh.; CHEKHOMOV, O.M.; KHASIN, G.A.

Refining of alloyed steels by molten synthetic slags. Stal' 20  
no. 7:611-618 J1 '60. (MIRA 14:5)  
(Steel--Electrometallurgy)

VOINOV, S.G.; KOSOY, L.F.; SHUMOV, M.M.; SHALIMOV, A.G.; CHEKHOMOV, O.M.;  
ANDREYEV, T.B.; AFANAS'YEV, S.G.; KALINNIKOV, Ye.S.; Prinimali  
uchastiye: KORNEYENKOV, A.N.; GURSKIY, G.V.; BOKSHITSKIY, Ya.M.;  
PETROV, A.K.; MOKHIR, Ye.D.; KOLYASNIKOVA, R.I.; KHASIN, G.A.;  
DANILIN, V.P.; PLEKHANOV, P.S.; MAZUN, A.I.; MARKIN, A.A.

Refining converter steel in the ladle with liquid synthetic slag.  
Stal' 22 no.3:226-232 Mr '62. (MIRA 15:3)  
(Steel--Metallurgy)

KORNEYENKOV, I., komandir korablya, instruktor (g.Ul'yanovsk)

Work with backward students. Grazhd.av. 13 no.1:15-16 Ja '56.

(MLRA 9:5)

(Aeronautics--Study and teachnig)

O I KORNEYENKOVA and V M ROZHDESTVENSKIY

"Development of a Material to Absorb High Frequency Energy in  
Special Delay Systems" from Annotations of Works Completed in 1955 at the State  
Unions Sci. Res. Inst. Min. of Radio Engineering Ind.

So: B-3,080,964

KORNEYEV, A.

Assistance should be given to the political instructors. Posh.  
delo 6 no.1:23-24 J. 160. (MIRA 13:5)  
(Communist education) (Fire departments)

Monthly List of Russian Accessions, Library of Congress, March 1952. Unclassified.

KORNEYEV, A., inzh.-kapitan, laureat Stalinskoy premii

Multipurpose excavator E-258. Voen.-inzh.shur. 96 no.9:30-32 8 '52.

(MIRA 12:3)

(Excavating machinery)



9.2583 (also 1040,1159)

28515 S/106/61/000/007/002/004  
AO55/A127

AUTHOR: Korneyev, A. A.

TITLE: Calculation of a quartz oscillator with neutralization

PERIODICAL: Elektrosvyaz', no. 7, 1961, 12 - 22

TEXT: In one of his earlier articles ["Kvartsevyye generatory s neytralizatsiyey" ("Quartz oscillators with neutralization"), Elektrosvyaz', 1958, no. 12] the author described several variants of the quartz oscillator stabilized on the crystal harmonics, with neutralization of the static capacitance of the crystal. His present article deals with the calculation of one of these oscillators. The analysed oscillator is shown in Fig. 1, where  $C_n$  is the neutralizing capacitance. The tuning of the circuit is effected by varying inductance  $L$  (and, to a certain extent, the parallel connected capacitance).  $C_d$  is the balancing capacitance, equal to the anode-cathode capacitance  $C_{ak}$ . The oscillator load is supposed to be the input capacitance of the following stage with the resistive component of the admittance. This load is matched to the oscillator circuit by means of the coupling capacitance  $C_{coupl}$  (see Fig. 2). Fig. 2 shows the part of the circuit of Fig. 1 between the anode and the cathode, with the equivalents of the load

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S/106/61/000/007/002/004  
A055/A127

Calculation of a quartz oscillator with neutralization

$C_{e1}$  and  $R_{e1}$ , and with the coupling capacitance. The analysis will be carried out on the basis of Fig. 2. When designing the oscillator, it is necessary to choose first the quartz ( $C_0$  being its static capacitance,  $r_q$  its loss resistance at the chosen harmonic, and  $\omega_q$  its series-resonance frequency) and the tube. The author discusses the choice of the other parameters (resistances and capacitances), and especially of the coupling capacitance. The choice of divider arm capacitance  $C_{12}$  depends on the magnitude of total anode-cathode capacitance  $C'_{ak} = C_{ak} + C_e$ , where  $C_e$  is the capacitance introduced by the load.  $C_d$  is chosen equal to  $C'_{ak}$ . To facilitate the choice of  $C_{coupl}$ , it is assumed that the tube can be subjected to the critical or overvoltage operation conditions: using the tube characteristics and choosing the supply voltages, it is then possible to determine approximately anode voltage amplitude  $U_a \text{ crit}$ , while  $C_{coupl}$  will be determined by

$$C_{coupl} \approx \frac{K_1}{1-K_1} C_{e1}, \quad (1)$$

where  $K_1 = U_1/U_a \text{ crit}$ .

$$C_e \approx C_{e1} K_1, \quad (2)$$

and

$$R_e \approx \frac{R_{e1}}{K_1^2} \quad (3)$$

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Calculation of a quartz oscillator with neutralization

The author reproduces the essential formulae necessary for the calculation of the analysed oscillator. These formulae were derived under the following assumptions:

$$C_n = C_0; C_1' = C_1; C_2' = C_2; C_{ak}' = C_d; R_{ck} \gg 1/\omega_q C_{ck}; C_{ac} = 0.$$

It is also assumed that  $C_{ak}'$  and  $C_d$  are included into the divider capacitances  $C_1$ ,  $C_2$  and  $C_2'$ ,  $C_1'$  ( $C_1' = C_1 + C_{ak}'$ ). The formula giving the controlling resistance of the oscillator is:

$$R = R_0 \frac{(b+b'm')[(2+q)\xi+A]}{(2+q)^2 \xi^2 + U\xi + W} \quad (4)$$

The correction for the self-oscillation frequency is:

$$\alpha = \frac{-b\xi + (2+q-B)}{(2+q)\xi + A} \quad (5)$$

In formulae (4) and (5),  $\xi$  is the generalized detuning of the anode circuit:  
 $\xi = (x_1 + x_1' + 2x_2)/r_1$ ;  $\alpha$  is the generalized detuning of the crystal with respect to the series-resonance frequency  $\omega_q$ :  $\alpha \approx 2(\omega - \omega_q)Q_q/\omega_q$ ;  $r_1$  is here the loss resistance of the anode circuit (account taken of the load);  $x_1 = \omega_q L - 1/\omega_q C_1$ ;  $x_1' = -1/\omega_q C_1'$ ;  $x_2 = -1/\omega_q C_2$ ;  $x_2' = -1/\omega_q C_2'$ .

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Calculation of a quartz oscillator with neutralization

$$A = 2q'(p+p') + n'p(2+q'); \quad B = q'b(p+p') + b'p(2+q');$$

$$U = 2(2+q)A; \quad W = A(A+b) + (2+q)(2+q-B);$$

$$R_0 = \frac{C_1+C_2}{\omega_q^2 C_1 C_2^2 r_1},$$

where:  $m' = \frac{x_1+x_1'}{x_1'+x_2}$ ;  $n' = \frac{C_0}{C_2}$ ;  $q = \frac{C_{ck}}{C_0}$ ;  $q' = \frac{C_{ck}}{C_2}$ ;  $b = -\frac{1}{\omega_q C_0 r_q} = -\frac{1}{\delta_0}$ ;  $b' = \frac{x_2}{r_q}$ ;

$p = \frac{x_1+x_1'}{r_1}$ ;  $p' = \frac{x_2}{r_1}$ . When calculating  $x_1$ ,  $L$  is assumed to be a constant equal to the magnitude at which the natural frequency of the oscillating system in the anode circuit coincides with the crystal frequency:

$$L = \frac{2}{\omega_q^2} \frac{C_1+C_2+C_0}{C_1(C_2+C_0)}. \quad (6)$$

The power dissipated by the crystal is:

$$P_q = I_{a1}^2 \frac{x_{co}}{2r_q} \left( \frac{p'}{2+q+q'} \right)^2 \frac{A_3^2}{[(\alpha+\xi)+p+A_4]^2 + [\xi A_4 + \alpha A_5 + A_6]^2}, \quad (11)$$

where  $I_{a1}$  is the amplitude of the first harmonic of the anode current,

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Calculation of a quartz oscillator with neutralization 23515 S/106/61/000/007/002/004  
A055/A127

$$A_3 = \frac{x_1}{x_{co}} - \left[ \frac{C_0}{C_1} (1+q+q') + q'' \right]; \quad A_4 = \frac{b}{2+q+q'}; \quad A_5 = 1 + n'p; \quad A_6 = \frac{bq'p'}{2+q+q'} + b'p - 1;$$

$x_{co} = -\frac{1}{\omega C_0}$ . The author analyses the variation of  $R$ , of  $P_q$  (and also of the relative frequency instability of the oscillator) with the detuning  $\xi$ . An example of a numerical calculation based on the above formulae is given at the end of the article. The difference between the calculated and the experimentally obtained values is of the order of 10%. There are 3 figures, 3 tables and 7 Soviet-bloc references.

SUBMITTED: November 14, 1960

[Abstracter's note: The following subscripts are translated in formulae and text: l (load) stands for H (nagruzka); n (neutralization) stands for H (neytralizatsiya); coupl (coupling) stands for c; e (equivalent) stands for e; crit (critical) stands for  $k_p$ ; q (quartz) stands for k (kvarts); k is left for cathode k]

Card 5/6

FAYBICH, M.M.; NEPOGODIN, N.F.; KORNEYEV, A.A.

Immunogenic characteristics of some fractions of the pathogen  
of plague. Biul. eksp. biol. i med. 55 no.1:77-80 Ja'63.

(MIRA 16:7)

1. Predstavlena deystvitel'nyy chlenom AMN SSSR N.N. Zhukovym-  
Verezhnikovym.

(PASTEURILLA) (NUCLEIC ACIDS) (IMMUNITY)

KORNEYEV, A.A., inzh.; MAKAROVA, G.S., inzh.

More on the reliability and life of construction machinery.  
Stroi. i dor. mash. 8 no.11:11-12 N '63. (MIRA 17:1)

KORNEYEV, A.A., inzh.

Causes of the breakdown of parts of the front bridge  
of the excavator. Stroi. i dor.mash. 10 no.12:20-21  
D '65. (MIRA 19:1)



KORNEYEV, A.D. (Khar'kov)

Therapeutic use of pneumoperitoneum in certain nontuberculous lung diseases. Klin.med. 39 no.1:123-126 Ja '61.

(MIRA 14:1)

1. Iz kafedry tuberkuleza (zav. - dotsent A.D. Korneyev)  
Khar'kovskogo meditsinskogo instituta (dir. - dotsent B.A.  
Zadachnyy).

(PNEUMOPERITONEUM, ARTIFICIAL)

L 44144-65 EPF(n)-2/EPA(s)-2/EPA(w)-2/ENT(m)/ENT(i)/ENT(b)/ENT(a) 2-17/20-1/

ACCESSION NR: AP5009672

REF ID: A66347

Author: Sargov, P. S. (Candidate of technical sciences) and Bogdanovskiy,  
A. A. (Candidate of technical sciences). And also: Korneev, V.  
(Engineer)

1.0. Исходные производные, no. 4, 1903, 20-22

TOPIC TAGS: welding, aluminum welding, submerged arc welding, aluminum  
submerged arc welding /AD1 aluminum, Al aluminum

**ABSTRACT:** A ceramic flux has been used in submerged-arc welding of Al-Mg alloy plates 20 mm thick. The welds were protected the whole contact with hydrogen, and the welds were free of cracks and pores. Good-quality, porous welds were obtained in the welds. The welds had a tensile strength of 100-120 MPa, respectively, as compared to 100-120 MPa for the Al base metal. The welds were close to the base metal, and the impurity content was low.

10-82-65 EWT(m)/EWP(k)/EWP(q)/EWP(b) Pf-4 ASD(f)/AFMD(a)/ASD(m)-17  
 EWT CD RP

FORM NR: AP4043481

5/0135/64-000/008/0015/0018

Bagryanskiy, K. V. (Candidate of technical sciences); Kal'yanov, V. N.  
 Korneev, A. D. (Engineer)  
 Failure of arc-deposited metal and alloy steels under cyclic  
 shocks

SOURCE: Svarochnoye proizvodstvo, no. 8, 1964, 15-18

TACS: thermal fatigue, stainless 1Kh18N9T steel, 2Kh13 steel,  
 steel, arc deposited steel, steel thermal fatigue, 1Kh18N9T  
 thermal fatigue, 2Kh13 steel thermal fatigue, stainless steel  
 thermal fatigue, tool steel thermal fatigue

ABSTRACT: A device and a procedure have been developed for the thermal fatigue testing of metals under the complex stresses which usually appear in a working part. A ground cylindrical specimen, clamped by its ends in the tight-fitting sockets of a rigid holder which prevents expansion or contraction of the control portion of the specimen, is subjected to repeated rapid heating and cooling. Several heat-resistant stainless and tool steels and weld deposits were tested by heating at a rate of 150 deg/sec to 680-700C (600-900C for

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L 8482-65

ACCESSION NR: AP40A3481

6  
1Kh18N9T steel), followed by quenching in water at 12-15C. Of the as-rolled steels, 3Kh2V8 steel [AISI H420] failed after 210-359 cycles, 2Kh11 steel [AISI 420] after 160-200 cycles, 1Kh18N9T steel after 185-179 cycles, and 40Kh steel [AISI 5140] after 12-33 cycles. Heat-treated (IRC 57) weld deposits of 3Kh5G2Si steel (0.45% C, 4.39-4.54% Cr, 1.62-1.69% Mn, 0.65-0.83% Si, 0.023-0.027% Ti) and 60Kh8G2 steel (0.63% C, 8.18-8.50% Cr, 1.75-1.80% Mn, 0.35-0.47% Si, 0.046-0.070% Ti) failed after 2-9 cycles, i.e., in this case (high strength and hardness and low ductility), the thermal fatigue resistance can be determined approximately by the Manson parameter. For weld deposits of ferrite-austenitic metal of the 1Kh18N9T type which failed after 250-290 cycles the average number of cycles to failure in the 600-900C range is determined by the equation

$$\sqrt{N} \sigma_{max} = \text{const.}$$

Thermal cycling had practically no effect on the microstructure; however, it strengthened steels with a stable structure and weakened those with an unstable one (hardened). The strengthening of deposited austenitic-martensitic metal and of the annealed 1Kh18N9T steel resulted (under experimental conditions) from the accumulation of

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ACCESSION NR: AP4043481

dislocations. The decreased hardness of deposited chromium-containing metal and of normalized 2Kh13 steel is associated with the rapid decomposition of hardened structures accompanied by alternating elastic-plastic deformations. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: Zhdanovskiy metallurgicheskii institut (Zhdanov Metallurgical Institute)

SUBMITTED: 00

ATD PRESS: 3104

ENCL: 00

SUB CODE: MM,IE

NO REF SOV: 011

OTHER: 003

Card 3/3

L 22841-66 EWP(e)/ENT(m)/EWP(v)/EWP(1)/T/EWP(t)/EWP(k) IIP(e) JD/VW/AM/RM/JH/JH  
 ACC NR: AP6011271 SOURCE CODE: UR/0413/66/000/006/0125/0125

INVENTOR: Bagryanskiy, K. V.; Kassov, D. S.; Korneyev, A. D. Penkov, O. M.

ORG: none

TITLE: Ceramic flux for welding aluminum. Class 49, No. 180074

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 125

TOPIC TAGS: welding, aluminum welding, submerged arc welding, welding flux, ceramic flux

ABSTRACT: This Author Certificate introduces a ceramic flux for submerged arc welding of aluminum which contains potassium chloride, cryolite, sodium chloride, and carboxymethyl cellulose as binder. To improve the quality of weld metal, the flux composition is set as follows (in weight parts): potassium chloride 47—48, cryolite 28—30, sodium chloride 19—20, silica 3—5, and carboxymethyl cellulose 12—13.

SUB CODE: 11/13 SUBM DATE: 09May63/ ATD PRESS: 4229 [ND]

Card 1/1 BK

KLASSEN, V.I.; GUREVICH, R.I.; BERLINSKIY, Sh.I.; KORNYEV, A.P.

Flotation with use of oleic acid at low pulp temperatures. TSvet.  
met. 31 no.4:71-73 Ap '58. (MIRA 11:5)

1. Institut gornogo dela AN SSSR i Igarskaya obogatitel'naya  
fabrika.

(Flotation) (Oleic acid)

KORNEEV, A.I.

Ratsionalizatsiia perevozo-k-vashneishii rezerv dosrochnogo vypolneniia piatiletki transporta. / Raising the efficiency of freight transport is the most important means of fulfilling the five-year plan for transportation/. (Zhel-dor. transport, 1948, no. 2, p. 36-44).

DLC: He7.Z5

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress Reference Department, Washington, 1952, Unclassified.



GIBSEMAN, A. Ye.; DANILOV, S. K., professor; DMITRIYEV, V. I.; KORNEYEV, A. I.;  
TVERSKOY, K. N.; UMBLIYA, V. N.; KHANUKOV, Ye. D.; CHERNOUMORDIK, D. I.;  
CHUDOV, A. S.; SHIL'NIKOV, N. S.; KRISHTAL', L. I., redaktor; KHITROV,  
P. A., tekhnicheskiy redaktor

[Economics of transportation] Ekonomika transporta. Moskva, Gos.  
transp. zhel-dor. izd-vo, 1955. 617 p. (MLA 9:3)  
(Railroads--Finance)

KORNEYEV, A.I.

PHASE I BOOK EXPLOITATION

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Gibshman, A. Ye., Danilov, S.K., Dmitriyev, V.I., Korneyev, A.I.,  
Tverskoy, K.N., Umbliya, V.E., Khanukov, Ye. D.,  
Chernomordik, D.I., Chudov, A.S., Shil'nikov, N.S.

Ekonomika transporta (The Economics of Transportation) 2d rev.  
ed. Moscow, Transzheldorizdat, 1957. 711 p. 30,000 copies  
printed.

Ed.: Krishtal', L.I.; Tech. ed.: Khitrov, P.A.

PURPOSE: This textbook is intended for students in engineering-  
economic branches of Railway Transportation Institutes, as well  
as for railway workers engaged in the independent study of railway  
economics.

COVERAGE: The economic aspects of railway transportation are dis-  
cussed in this textbook. It covers such subjects as technical-  
economic problems, the most efficient way to use available  
facilities, methods for planning and organizing various branches

Card 1/21

The Economics of Transportation

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of transportation operations and production, wages, costs, finances, and business accountability (khozraschet). For detailed information see Table of Contents. The book is written by several specialists in the field of railway transportation: Chapters I and IV, and part 1 of chapter II are written by Prof. S.K. Danilov; Ch. II, (parts 2, 3, and 4) is written by D.I. Chernomordik, Doctor of Economic Sciences; Ch. III by Docent A.I. Korneyev; Chapters V, VII, and VIII by Prof. Ye. D. Khanukov, Doctor of Economic Sciences; Chapters VI and XIV by Docent K.N. Tverskoy, Candidate of Economic Sciences; Ch. IX by V.I. Dmitriev, Candidate of Economic Sciences; Ch. X by Prof. A. Ye. Gibshman, Doctor of Technical Sciences; Ch. XI by Docent V.E. Umbliy, Candidate of Economic Sciences (deceased), revised by Prof. S.K. Danilov; Ch. XII by Docent A.S. Chudov, Candidate of Technical Sciences; Ch. XIII by Docent N.S. Shil'nikov, Candidate of Economic Sciences. There are 24 pages of references (pp. 682 through 705). Pages 682 to the middle of 694 are devoted exclusively to references from the works of Marx, Engels, and Lenin.

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APPROVED FOR RELEASE: 06/14/2000

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From the middle of p. 694 through p. 705, the references are transportation orders issued by the Communist Party and the Soviet government. No other personalities are mentioned.

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2. Role of transportation in capitalist production  
Characteristics of transportation as a branch of industrial production

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Characteristics of transportation as an industry

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Characteristics of capitalist transportation

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GALITSKIY, Mikhail Iosifovich, prof.; DANILOV, Sergey Konstantinovich, prof.; KORNEYEV, Aleksandr Il'ich, dots.; PESKOVA, L.N., red.

[Economic geography of U.S.S.R. transportation] Ekonomicheskaya geografiya transporta SSSR. Moskva, Transort, 1965.  
302 p. (MIRA 18:1)

KORNEYEV, A.I.

Case of simultaneous perforation of two stomach ulcers. Khirurgia  
35 no.12:88-89 D '59. (MIRA 13:6)

1. Iz khirurgicheskogo otdeleniya (zav. A.I. Korneyev) Moskov-  
skoy gorodskoy bol'nitsy No.51 (glavnyy vrach N.F. Kravchuk).  
(PEPTIC ULCER MEDICATION case reports)

KORNEYEV, A.I. (Moskva, Zh-193, Koshukhovskaya 6-ya ul., d. 27, kv.63)

Cholelithic obturating obstruction of the intestine. Nov. khir.  
arkh. no.9:73-74 S '61. (MIRA 14:10)

1. Kafedra obshchey khirurgii (zav. - prof. G.P.Zaytsev) pediatriche-  
skogo fakul'teta 2-go Moskovskogo meditsinskogo instituta na baze  
4-y Moskovskoy gorodskoy klinicheskoy bol'nitsy.  
(INTESTINES—OBSTRUCTIONS)

KORNEYEV, A.I. (Moskva)

Session in honor of the 150th anniversary of the founding of the  
Moscow Sheremet'ev Hospital, now known as the N.V.Sklifosovskii  
Institute. Fel'd. i akush. 26 no.3:47-50 Mr '61. (MIRA 14:3)  
(PEPTIC ULCER) (HEART FAILURE)  
(EXTREMITIES (ANATOMY)—FRACTURES)

KORNEYEV, A.I. (Moskva)

150th anniversary of the Sheremet'ev Hospital in Moscow. Fel'd.  
i akush. 26 no.4:39-40 Ap '61. (MIRA 14:3)  
(MOSCOW--HOSPITALS)



ZAYTSEV, G.P., professor; KORNEEV, A.I.

Recurrences of pheochromocytoma. Vest.khir. no.6:89-93 '62.  
(MIRA 15:11)

1. Iz kliniki obshchey khirurgii (zav. - prof. G.P. Zaytsev)  
pediatricheskogo fakul'teta 2-go Moskovskogo meditsinskogo  
instituta im. N.I. Pirogova na baze 4-y Moskovskoy gorodskoy  
klinicheskoy bol'nitsy (gl. vrach - kand.med.nauk F.G. Papko).  
(CHROMAFFIN SYSTEM—TUMORS)

KORNEYEV, A.I.

Complications and lethal results of appendectomies for 14 years,  
(1946-1959). Nauch.trudy Chetv.Mosk.gor.klin.bol'. no.13160-173  
'61. (MIRA 1632)

1. Iz kliniki obshchey khirurgii pediatricheskogo fakul'teta  
(direktor - prof. G.P. Zaytsev) 2-go Moskovskogo gosudarstven-  
nogo meditsinskogo instituta imeni N.I. Pirogova, na baze Moskov-  
skoy gorodskoy klinicheskoy bol'nitsy No.4 (glavnyy vrach - G.P.  
Papko. Zav. 7-m khirurgicheskim otdeleniyem A.I. Korneyev).  
(APPENDECTOMY)

KORNEYEV, A.I.

03582

Diagnostic errors and treatment of strangulated diaphragmatic  
hernias. Vest.khir. no.5:111-114 '61. (MIRA 15:1)

1. Iz kliniki obshchey khirurgii pediatricheskogo fakul'teta  
(dir. - prof. G.P. Zaytsev) na baze 4-y Moskovskoy gorodskoy kli-  
nicheskoy obl'nitsy (gl. vrach - G.F. Papko) 2-go Moskovskogo  
meditsinskogo instituta im. N.I. Pirogova.  
(DIAPHRAGM--HERNIA)

ZAYTSEV, G.P., prof.; KORNEYEV, A.I.

Analysis of postoperative mortality in acute appendicitis  
according to clinical data for a 17-year period. Khirurgiia  
39 no.11:37-44 N '63. (MIRA 17:11)

1. Iz kliniki obshchey khirurgii (dir. - zasluzhennyy deyatel'  
nauki prof. G.P. Zaytsev) pediatricheskogo fakul'teta II Mos-  
kovs'ogo meditsinskogo instituta imeni Pirogova na baze 4-y  
Mosk. vskoy gorodskoy klinicheskoy bol'nitsy.